



Talbot County
Region V (Tilghman) Wastewater Treatment Plant
Proposed Wind Turbine

Result of Balloon Tests (August 31, 2011)

And

Computer Simulations



Region V (Tilghman) Wastewater Treatment Plant

- General Information

- Last year's electrical costs: \$22,500
- Estimated electric usage at plant: 150,000 kW-hours
- Proposed Wind Turbine:
 - Endurance – 50 KW unit
 - Estimated annual electricity production: 150,000 kW-hours
 - Total height of Turbine (ground level to tip of blade): 152 ft
 - Diameter of blades: 63 ft
 - Monopole Tower
 - Proposed Electric savings: \$13,000
(Savings does not include revenues from Renewable Energy Credits (RECs))
- Funding
 - MDE allocated \$300,000 in grants and \$300,000 in low interest loans for renewable energy facilities at the plant.
 - Proposed project would be one 50kW wind turbine with up to 50 kW of solar panel arrays.

Region V (Tilghman) Wastewater Treatment Plant

- General Information

- Funding

- Maryland Department of the Environment allocated \$300,000 in grants and \$300,000 in low interest loans for renewable energy facilities at the plant.
 - Maryland Energy Administration - \$75,000 from Wind Swept Grant and up to \$25,000 in grant funds for Solar Energy
 - Proposed project would be one 50kW wind turbine with up to 50 kW of solar panel arrays.
 - Wind Turbine Estimated Construction Cost: \$380,000 - \$400,000
 - 10 kW Solar Arrays: \$50,000/10 kW Array
 - Proposed Base Bid
 - » One (1) 50 kW Wind Turbine and 20 kW solar Array
 - » Add-Alternate: add price to install 10 kW solar array up to 30 kW.
 - » Base Bid Estimate: \$500,000
 - » Add Alternate Estimate: \$50,000 - \$150,000



Proof of Balloon Tests on August 31, 2011



Not Visible – Knapps Narrow Bridge



Not Visible – Black Walnut Point



Not Visible – Bar Neck/Bar Neck Road



Not Visible – Intersection of Black Walnut Point and Bar Neck Roads



Not Visible – Dogwood Harbor




Fairbank Road



Site Name: Tilghman Island
Wireless Communication Facility
21345 Foster Ave.
Tilghman, MD 21671

Photograph Information:
4392 Fairbank Rd
View from the South
Showing the Balloon Test

 **NETWORK BUILDING
& CONSULTING, LLC**

Fairbank Road




Back Creek Park at Platform – Balloon Tests



Site Name: Tilghman Island
Wireless Communication Facility
21345 Foster Ave.
Tilghman, MD 21671

Photograph Information:
Back Creek Park
View from the North
Showing the Proposed Site

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Back Creek Park at Platform – Wind Turbine View



Back Creek Park – Balloon Test



Sunset Avenue (Private Pier) – Balloon Test



Sunset Avenue (Private Pier) – Wind Turbine View



Cooperstown Road /Sunset Ave – Balloon Test



Cooperstown Road /Sunset Ave – Wind Turbine View



Tilghman Baseball Park – Balloon Test



Tilghman Elementary School – Balloon Test



Harrisons Parking Lot – Balloon Test



Harrisons Parking Lot – Wind Turbine View



Tilghman on the Chesapeake Club House Parking Lot– Balloon Tests



Site Name: Tilghman Island
Wireless Communication Facility
21345 Foster Ave.
Tilghman, MD 21671

Photograph Information:
Tilghman on the Chesapeake
View from the Southeast
Showing the Proposed Site

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Tilghman on the Chesapeake Club House Parking Lot Wind Turbine View

Chesapeake Community College



Chesapeake Community College



Bio-Solids Facility (Klondike Road)



Bio-Solids Facility (Klondike Road)



Questions or Comments

- Process:
 - Forward information to the Talbot County and seek direction as to how to proceed.
 - Forward final plans and specifications to MDE for their review and comments.
 - Issues and/or Concerns can be forward to the County Council:

Talbot County Council
11 N. Washington Street
Easton, Maryland 21601
(410) 770-8010